

ORIGINAL



0000097246

BEFORE THE ARIZONA POWER PLANT
AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE APPLICATION OF
UNS ELECTRIC, INC. FOR A CERTIFICATE
OF ENVIRONMENTAL COMPATIBILITY
FOR THE VAIL TO VALENCIA 115 KV TO
138 KV TRANSMISSION LINE UPGRADE
PROJECT, ORIGINATING AT THE EXISTING
VAIL SUBSTATION IN SEC. 4, T.16S., R.15E.,
PIMA COUNTY, TO THE EXISTING
VALENCIA SUBSTATION IN SEC. 5, T. 24S.,
R.14E., IN THE CITY OF NOGALES, SANTA
CRUZ COUNTY, ARIZONA.

Docket No. L-00000F-09-0190-00144

Case No. 144

NOTICE OF FILING
WITNESS SUMMARIES
AND
PROPOSED FORM OF
CERTIFICATE OF ENVIRONMENTAL
COMPATIBILITY

UNS Electric, Inc. ("UNS Electric" or "Company"), through undersigned counsel, hereby
provides:

Arizona Corporation Commission
DOCKETED

MAY 22 2009

DOCKETED BY

1. The Witness Summary of Ed Beck;
2. The Witness Summary of George Miller;
3. The Witness Summary of Mike Warner;
4. A redlined version of the Proposed Form of Certificate of Environmental
Compatibility ("CEC"); and
5. A clean version of the Proposed Form of CEC.

These documents will also be marked as UNS Electric exhibits at the hearings.

RESPECTFULLY SUBMITTED this 22nd day of May 2009.

UNS ELECTRIC, INC.

By

Michael W. Patten
J. Matthew Derstine
Jason D. Gellman
ROSHKA DEWULF & PATTEN, PLC
400 East Van Buren, Suite 800
Phoenix, Arizona 85004
(602)256-6100

DOCKET CONTROL
ARIZONA CORPORATION COMMISSION

MAY 22 2009 3:00 PM

RECEIVED

ROSHKA DeWULF & PATTEN, PLC
TWO ARIZONA CENTER
400 NORTH 5TH STREET - SUITE 1000
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

1 Original and 25 copies filed
2 this 22nd day of May 2009, with:

3 Docket Control
4 ARIZONA CORPORATION COMMISSION
5 1200 West Washington Street
6 Phoenix, Arizona 85007

7 A copy of the foregoing was hand-delivered/
8 mailed this 22nd day of May 2009 to:

9 Chairman John Foreman
10 Arizona Power Plant and Transmission Line Siting Committee
11 Arizona Attorney General Office
12 1275 West Washington Street
13 Phoenix, Arizona 85007

14 Janice M. Alward, Esq.
15 Chief Counsel, Legal Division
16 Arizona Corporation Commission
17 1200 West Washington Street
18 Phoenix, Arizona 85007

19 Ernest G. Johnson
20 Director, Utilities Division
21 Arizona Corporation Commission
22 1200 West Washington Street
23 Phoenix, Arizona 85007

24 Elizabeth Buchroeder-Webb
25 17451 E. Hilton Ranch Rd.
26 Vail, Arizona 85641

27 Marshall Magruder
P. O. Box 1267
Tubac, Arizona 85646-1267

By



WITNESS SUMMARY

OF

ED BECK

**VAIL TO VALENCIA 115 kV TO 138 kV
TRANSMISSION LINE UPGRADE PROJECT
DOCKET NO. L-00000F-09-0190-00144
CASE NO. 144**

WITNESS SUMMARY: ED BECK

Mr. Beck will testify about the purpose and need for the Vail to Valencia 115 kV to 138 kV Transmission Line Upgrade Project ("Project") as well an overview of the Project. Specifically, Mr. Beck will discuss how the Project:

- Improves the service to Santa Cruz County by interconnecting with the Vail Substation;
- Upgrades the voltage of the existing 115 kV line to 138 kV, and increases capacity to 120 MW to serve Santa Cruz County; and
- Replaces aging wooden H-frame structures with steel monopoles, thereby improving reliability.

Mr. Beck received a B.S. degree in Civil Engineering and M.B.A. from the University of Arizona. He is a Registered Professional Engineer in Arizona and a member of the American Society of Civil Engineers. Mr. Beck has 30 years experience in the electric utility industry, and has extensive experience as a project engineer and project manager for transmission line and substation design projects. He has designed and managed the construction of 138 kV, 345 kV and 500 kV transmission projects. He is currently Director of Line Siting Services and is responsible for siting of transmission facilities for both TEP and UNS Electric, Inc.

Mr. Beck will first discuss the current 115 kV transmission line (with the help of an overflight simulation) from the Nogales Tap in Pima County to the Valencia Substation in the City of Nogales. Mr. Beck will identify some of the major issues facing UNS Electric, Inc. in providing service through that existing line.

Next, Mr. Beck will explain how UNS Electric currently receives power from Western Area Power Administration ("WAPA") and through a 115 kV line from the Parker-Davis area that eventually runs to the Apache Substation near Benson, Arizona. The Nogales Tap, owned and operated by WAPA is interconnected with this 115 kV line. UNS Electric currently acquires power from WAPA under Network Service (a pro-rata pay as you go system) from the Nogales Tap; it had, until October 2008, acquired power under fixed Point to Point Service from WAPA.

Mr. Beck will explain that under WAPA Point to Point Service, the constraint at the Nogales Tap was a contractual constraint at about 65.8 MW. Mr. Beck will testify as to the reason UNS Electric now currently takes Network Service from WAPA, which was mainly to address issues and difficulties UNS Electric was incurring with WAPA service in Mohave County (specifically contractual limitations with Point to Point Service), but which also was to lower the cost of transmission for UNS Electric both in Mohave and Santa Cruz Counties. While the early technical studies did not indicate an increased operational constraint when changing to Network Service, Mr. Beck will explain the most recent study-work that resulted in a reduced capacity to about 50.9 MW.

Mr. Beck also will testify as to the current need to run the Valencia Turbines to address the voltage constraint. This results in greater fuel costs incurred by UNS Electric, and more environmental issues of running the Valencia Turbines that are located within the City of Nogales. A main purpose of the Project is to overcome the capacity limitation caused by the voltage stability issue and significantly reduce the need to run the Valencia Turbines.

Mr. Beck will testify how the upgrade of the line to 138 kV contributes to improving the capacity to 120 MW. Further, because approximately 50% of the line

(from the Nogales Tap to the Kantor Substation) is already designed to operate at 138 kV¹, no construction or new equipment is needed along that portion of the Project. Mr. Beck will testify that the Project is an efficient way to address the capacity and reliability-must-run problems in this part of UNS Electric's service territory.

Mr. Beck will further testify how interconnecting at the Vail Substation also contributes to improving the capacity to 120 MW in order to serve Santa Cruz County by removing the constraint at the Nogales Tap. Mr. Beck will describe how interconnecting at the Vail Substation provides UNS Electric better access to power, because the Vail Substation has more connectivity to the regional transmission grid. Further, he will confirm that the Project has been described in every 10-year plan UNS Electric has submitted to the Arizona Corporation Commission since 2004.

To this point, Mr. Beck will discuss how the Project is optimal compared to other potential alternative system options, such as upgrading the WAPA system. Mr. Beck will testify that the portion of the Project extending the line to the Vail Substation (at 138 kV) will cost roughly between \$1.5 million and \$2.0 million (depending on ROW) cost. This same amount would not be sufficient to increase the capacity at WAPA to the same extent with the Project as proposed (keeping in mind that the line south of the Kantor Substation would need to be rebuilt regardless). Further, in order to increase the capacity needed to serve Santa Cruz County and Nogales while still interconnected at the Nogales Tap, WAPA's system would need extensive capital improvements. This includes perhaps rebuilding the existing 115 kV WAPA line interconnecting with the Nogales Tap to 230 kV from the Liberty Substation (located in the southwestern Greater Phoenix metropolitan area). Because UNS Electric is a relatively small customer of WAPA

¹ As stated in Line Siting Case No. 78 that was approved in August, 1988 (Decision No. 56097).

(compared to its other customers), it is unlikely that WAPA will prioritize that upgrade for UNS Electric's benefit over other projects WAPA may be contemplating.

Mr. Beck will also testify that while the cost of transmission (i.e. wheeling costs) through WAPA may currently be lower than the cost to wheel power from 345 kV lines into the Vail Substation, any WAPA-planned transmission projects and significant capital investment associated therewith will likely prompt future increases in its Transmission Tariff. Therefore, it is unlikely WAPA's transmission charges will remain at the same rate (and would likely be significantly higher in the long-term). This is especially true should WAPA decide to upgrade the line interconnecting at the Nogales Tap. Moreover, the wheeling charges to the Vail Substation may be less than the WAPA charges – even initially.

Regarding line loss charges, UNS Electric currently incurs three percent losses through WAPA, and would likewise do so through TEP's OATT. In terms of addressing the need for economical power, Mr. Beck will testify that interconnecting at the Vail Substation is preferable to upgrading the WAPA line that is supplying the interconnection at the Nogales Tap.

Further, Mr. Beck will testify that the Project is needed regardless of any other projects contemplated in southern Arizona to address other reliability issues. The need for other projects contemplated in southern Arizona exists independently of this Project. At most, the timing of the other projects may be affected. But the Project does not create the need for additional projects not already contemplated. And the Project will not be to the detriment of customers in southern Arizona, specifically TEP customers. The Project offers tangible and significant benefit for UNS Electric customers in Santa Cruz County, including allowing better access to less expensive sources of power and prospectively

greater access to cleaner sources of power. Mr. Beck's testimony will show that interconnecting at the Vail Substation is the least costly and best solution, for UNS Electric and its Santa Cruz County customers, in terms of ensuring access to an adequate, reliable and economic supply of power.

Mr. Beck will further testify about how the Project improves reliability by replacing the aging wood H-frame structures with steel monopoles. Mr. Beck will testify as to the significantly superior strength of the monopoles compared to the wood H-frame structures and why monopoles are preferred over other types of structures. These monopoles will be as shown in Exhibit G of the Application. Mr. Beck will discuss replacement of transformers at specific substations and other equipment needed to accommodate the change to 138 kV from 115 kV.

Finally, Mr. Beck will address in his testimony:

- Construction and engineering issues, particularly in Segment 4 and why the existing alignment where Old Tucson Road and Grand Avenue intersect presents near impossible conditions to rebuild the line.
- The purpose behind the requested corridor width for 500 feet (and 1,250 feet at the Preston Mobile Home Park) and the relationship to the final right-of-way of 100 feet.
- Other right-of-way issues including what UNS Electric would do with existing easements if the transmission line was moved and with existing distribution facilities in the easement versus where no distribution facilities exist. Mr. Beck will also be prepared to discuss what additional right-of-way will be needed among any of the route options.

- Costs of staging and constructing the different route options, taking into account engineering, construction, generation and right-of-way acquisition factors.
- Construction of the line and the facilities and equipment used to construct the line, including discussing temporary and permanent ground disturbance and UNS Electric's policies on restoration of ground disturbance. Along these lines, Mr. Beck will also be prepared to discuss UNS Electric's vegetation management practices.
- Posting of signs along the route options in the Application notifying persons of the route options and the upcoming siting hearings.
- UNS Electric's proposed form of Certificate of Environmental Compatibility ("CEC"), description of the route options and conditions contained therein.

Mr. Beck's testimony will be aided by a PowerPoint presentation that will be marked as a separate exhibit. Mr. Beck may also make use of virtual tour materials during his testimony. Color copies will be made available at the hearing for inclusion in the provided three-ring binders.

WITNESS SUMMARY

OF

GEORGE MILLER

**VAIL TO VALENCIA 115 kV TO 138 kV
TRANSMISSION LINE UPGRADE PROJECT
DOCKET NO. L-00000F-09-0190-00144
CASE NO. 144**

WITNESS SUMMARY: GEORGE MILLER, AICP

Mr. Miller will testify about the extensive public outreach process used by UNS Electric, Inc. ("UNS Electric") and Transcon Environmental, Inc. ("Transcon") undertaken as part of its process to determine what final routes to propose in UNS Electric's Application for the Vail to Valencia 115 kV to 138 kV Transmission Line Upgrade Project ("Project").

Mr. Miller received a B.S. in Environmental Science and an M.A. in Urban and Regional Planning – both from the University of Colorado. Mr. Miller has over 20 years experience in environmental consulting work including the siting of electrical transmission lines. Mr. Miller is also a member of the American Institute of Certified Planners. He is a Senior Planner at Transcon.

Mr. Miller will testify regarding communication with federal, state and local agencies and governmental entities regarding the Project. This includes contact with agencies through the formal agency notification that took place January 25, 2008. Mr. Miller will further discuss agency and stakeholder meetings with: (1) the Cities of Nogales and Tucson; (2) Pima and Santa Cruz Counties; (3) Arizona State Land Department; (4) federal agencies such as the Bureau of Land Management and U.S. Fish and Wildlife Service. Mr. Miller will testify regarding how any comments from those agencies were incorporated into the analysis Transcon conducted in determining the final routes to propose in the Application.

Mr. Miller will also testify about the tribal notification that took place (also on January 25, 2008) as part of the public outreach process. Mr. Miller will discuss the responses received to that notification.

Further, Mr. Miller will testify about newsletters sent and public open houses:

- The first newsletter sent December 27, 2007, to over 5,000 residents in the initial study area.
- The first series of public open houses held February 26 and 27, 2008, in Rio Rico and Nogales respectively – including the number of attendees and materials displayed.
- The second newsletter sent in May 2008, to over 20,000 residents in the final (and expanded) study area – including notification of the second series of public open houses.
- The second series of public open houses held May 27, 28, and 29, 2008, in Tucson, Green Valley, and Nogales respectively – including the number of attendees and materials displayed.
- The third newsletter sent in November 2008 to over 30,000 addresses in the final study area – including notification of the third series of public open houses.
- The third series of public open houses held December 2, 3, and 4, 2008 in Nogales, Tucson and Green Valley respectively – including the number of attendees and materials displayed.
- The fourth newsletter sent in April 2009 to over 30,000 addresses notifying the public in the study area that the Application was filed and when the CEC hearings were to be held – in addition to the official public notice published in

local newspapers and signs posted along the preferred and alternative alignments in each Segment.

Mr. Miller will testify about additional efforts UNS Electric and/or Transcon undertook to notify the general public about the Project and public open houses. This included posting information and materials on the UniSource Energy Services (“UES”) website (UES being the immediate parent company of UNS Electric) and a Project telephone information line. Mr. Miller will further testify about the interactive project map that the public could use to learn more about the Project proposed routes. The map was available on the internet as well as at the last two series of public open houses.

Mr. Miller will also testify about the responses UNS Electric and Transcon received throughout the public process. Mr. Miller will discuss how public concerns and issues were incorporated into the analysis of selecting the final proposed routes and the preferred alignments in each of the four Segments of the Project. Mr. Miller also will specifically discuss how the public was able to suggest additional alignments in the expanded study area during the process of selecting the final proposed routes.

Finally, Mr. Miller will testify about the public’s comments and concerns in relation to the final routes proposed in the Application. Mr. Miller will discuss preferences amongst the public and/or agencies between the proposed routes in each Segment of the Project. Finally, Mr. Miller will discuss further outreach done by UNS Electric and/or Transcon since the Application was filed.

Mr. Miller’s testimony will be aided by a PowerPoint presentation that will be marked as a separate exhibit. Color copies will be made available at the hearing for inclusion in the provided three-ring binders.

WITNESS SUMMARY

OF

MIKE WARNER

**VAIL TO VALENCIA 115 kV TO 138 kV
TRANSMISSION LINE UPGRADE PROJECT
DOCKET NO. L-00000F-09-0190-00144
CASE NO. 144**

WITNESS SUMMARY: MIKE WARNER, AICP, ASLA

Mr. Warner will testify regarding as to the environmental compatibility of the final proposed routes contained within the Application for the Vail to Valencia 115 kV to 138 kV Transmission Line Upgrade Project ("Project"). Mr. Warner will also testify as to why the preferred alignments (one in each of the four Segments) are the most environmentally compatible.

Mr. Warner is the President of Transcon Environmental, Inc. ("Transcon"). He has a B.S. in Agronomy from BYU and a M.S. in Landscape Architecture/Environmental Planning from Utah State University. His experience includes over 20 years of environmental consulting work involving utilities including transmission line projects. He is a member of the American Institute of Certified Planners and American Society of Landscape Architects. Mr. Warner served as the Project Manager for the Project. Mr. Warner will discuss his involvement with the Project as well as personnel from both Transcon and UNS Electric that contributed to determining the final proposed routes.

Mr. Warner will testify about his role as the Transcon Project Manager in gathering, synthesizing and analyzing the data to determine the final proposed routes for the Project. He will discuss the project goals from the environmental planning perspective, including ascertaining the environmentally compatible routes. He will further discuss the need to look at alternative options to rebuilding the existing 115 kV line in its current location, because of: (1) residential and existing land use conflicts or encroachments which make operation and maintenance difficult or unsafe; and (2) construction and engineering difficulties present along the existing 115 kV line

alignment. This also would allow UNS Electric to present alternative alignments for all portions of the Project where construction for the upgrade would occur. Further, Mr. Warner will discuss why and how the study area was expanded to approximately one mile east and one mile west of the existing 115 kV line alignment.

Mr. Warner will describe the different environmental factors analyzed to determine what final routes to propose including:

- Pima County's Conservation Land Systems – including Important Riparian Areas, Biological Core Management Areas, and Multi-Use Management Areas.
- Important cultural and/or recreational areas, including the Tubac Presidio State Historic Park, the Tumacacori National Historic Park, the Juan Batista de Anza National Historic Trail, the San Cayetano de Calabaza Mission, and the Sgt. Manuel H. Tapia Recreational Trail.
- The several Mesquite Bosques that populate the Santa Cruz River Valley that are biologically rich areas for several species, including a couple of species of concern both locally and nationally.
- Existing residential areas throughout the study area, particularly those residential areas in Rio Rico where there are several encroachments into the existing 115 kV line right-of-way.
- The dense commercial area at the intersection Old Tucson Road and Grand Avenue in Nogales where rebuilding the existing 115 kV transmission line would present engineering and construction issues so extreme as to be unreasonably cost prohibitive and in conflict with established land uses, and

constrained by relevant agencies (ADOT), hence the reason to bypass that area until Frank Reed Road.

Mr. Warner will then summarize how Transcon narrowed the possible route options within the expanded study area to the final proposed routes contained within the Application. Mr. Warner will testify that environmentally-compatible alternative alignments are presented for the vast majority of the Project. But Mr. Warner will describe how the Preferred Alignments in each Segment are more environmentally compatible (and in some cases substantially) than the alternative alignment(s).

Mr. Warner will then discuss the final proposed routes presented in the Application. In going through the final proposed alignments, Mr. Warner will testify about the preferred alignments in each segment being the most environmentally compatible routes. Specifically:

- The North Route in Segment 1A is the Preferred Alignment because it is favored by Arizona State Land Department and it maximizes the use of the previously-upgraded transmission line that is part of this Project and located in Segment 1B. To that point, no alternative alignments were presented in Segment 1B because no construction or any new equipment is needed in order for that portion of the line to operate at 138 kV.
- The Modified Route in Segment 2 because it utilizes a significant majority of the existing line alignment but mostly avoids dividing landowners property between Pendleton Drive and the Union Pacific Railroad Right-of-Way ("Railroad ROW"). Further, moving the line adjacent to the Railroad ROW east edge will avoid bifurcating the mesquite bosque in this portion of the Segment. While this Route would be at the edge of that bosque and require

some vegetation clearing, the portion of the bosque currently cleared due to the existing 115 kV line could then regenerate. This route also would avoid being in closer proximity to the Tubac Presidio State Historic Park, Tumacacori National Historic Park, and the Juan Bautista de Anza National Historic Trail. Residents of Tubac had voiced opposition to using the Railroad ROW near Tubac, which is mainly why it was not considered part of the Preferred Alignment in this Segment.

- The West Route in Segment 3 because it avoids the many encroachments in the existing right-of-way and follows flat and level terrain. The West Route also runs parallel to the Railroad ROW and a UNS Electric distribution line. By contrast, rebuilding along where the existing 115 kV line in this Segment would involve difficult construction activities due to the rugged terrain, the need for new access roads, and the encroachments that have developed along that alignment. Further, the West Route would be located at the edge of bosques in that Segment.
- The Existing Line Route in Segment 4 because it maximizes the use of existing right-of-way and because it crosses mostly industrial and light industrial areas. Further, this route bypasses a densely developed area along where Grand Avenue and Old Tucson Road and instead goes through a commercial and industrial area (but with far less engineering and construction difficulties). Further, this alignment avoids creating new visual impacts in residential areas northeast of Nogales and in the Nogales area east of the Valencia substation. Finally, this alignment would avoid the San Cayetano de

Calabazas Mission and residences along Pendleton drive south of the Sonoita Substation.

Mr. Warner's testimony will be aided by a PowerPoint presentation that will be marked as a separate exhibit. Mr. Warner will also make extensive use of virtual tour materials during his testimony. Color copies will be made available at the hearing for inclusion in the provided three-ring binders.

**REDLINED VERSION OF
PROPOSED FORM OF
CERTIFICATE OF
ENVIRONMENTAL
COMPATIBILITY**

1
2
3
4
5
6
7
8
9
10
11

**BEFORE THE ARIZONA POWER PLANT AND
TRANSMISSION LINE SITING COMMITTEE**

12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

IN THE MATTER OF THE APPLICATION OF
UNS ELECTRIC, INC. FOR A CERTIFICATE
OF ENVIRONMENTAL COMPATIBILITY
FOR THE VAIL TO VALENCIA 115 KV TO
138 KV TRANSMISSION LINE UPGRADE
PROJECT, ORIGINATING AT THE EXISTING
VAIL SUBSTATION IN SEC. 4, T.16S., R.15E.,
PIMA COUNTY, TO THE EXISTING
VALENCIA SUBSTATION IN SEC. 5, T.24S.,
R.14E., IN THE CITY OF NOGALES, SANTA
CRUZ COUNTY, ARIZONA.

Docket No. L-00000F-09-0190-00144

Case No. 144

12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

Pursuant to notice given as provided by law, the Arizona Power Plant and Transmission
Line Siting Committee (the "Committee") held public hearings on June 2, 3, 4, 2009 in Rio Rico,
all in conformance with the requirements of Arizona Revised Statutes ("A.R.S.") § 40-360, *et*
seq., for the purpose of receiving evidence and deliberating on the Application of UNS Electric,
Inc. ("Applicant") for a Certificate of Environmental Compatibility ("CEC") in the above-
captioned case (the "Project").

The following members and designees of members of the Committee were present at one
or more of the hearings for the evidentiary presentations and/or for the deliberations:

John Foreman	Chairman, Designee for Arizona Attorney General Terry Goddard
David L. Eberhart, P.E.	Designee for Chairman, Arizona Corporation Commission
Paul Rasmussen	Designee for Director, Arizona Department of Environmental Quality
Jessica Youle	Designee for Director, Energy Department, Arizona Department of Commerce
Jeff Maguire	Appointed Member
Bill Mundell	Appointed Member

1	Patricia Noland	Appointed Member
2	Michael Palmer	Appointed Member
3	Michael Whalen	Appointed Member
4	Barry Wong	Appointed Member

5 The Applicant was represented by J. Matthew Derstine and Jason D. Gellman of Roshka,
6 DeWulf & Patten, PLC, and Marcus G. Jerden of UniSource Energy Corporation. The following
7 parties were granted intervention pursuant to A.R.S. § 40-360.05: Marshall Magruder and
8 Elizabeth Webb, both in pro persona.

9 At the conclusion of the hearings, the Committee, having received the Application, the
10 appearances of the parties, the evidence, testimony and exhibits presented at the hearings, and
11 being advised of the legal requirements of A.R.S. §§ 40-360 to 40-360.13, upon motion duly
12 made and seconded, voted X to X to grant the Applicant this CEC (Case No. 144) for the Project
13 to rebuild the existing 115 kV transmission line as a 138 kV transmission line and interconnect
14 that transmission line to the Vail Substation as set forth in the Application.

15 The Project as approved consists of approximately 57.8 miles of 138 kV transmission line
16 and ancillary facilities along the route as described below. The Project starts at the Vail
17 Substation, and ends at the Valencia Substation. A legal description and general location map of
18 the Project is attached as Exhibit A.

19 As explained in the Project Application, the Project will:

- 20 • Interconnect the northern end of the line with a major import substation (the Vail
21 345/138 kV Substation) instead of the Nogales Tap.
- 22 • Upgrade the voltage of the existing 115 kV line to 138 kV.
- 23 • Replace aging wooden H-frame structures with steel monopoles.

24
25 As explained in the Project Application, the Project Alignment (the route granted for the
26 Project in this CEC), consisting of a 500-foot-wide planning corridor except where noted, and as
27 more further described in attached Exhibit A and the Application, is as follows:

1 The Project Alignment originates from the Vail Substation in Section 4, Township 16
2 South, Range 15 East. The Project Alignment then extends westerly parallel to TEP's Vail-Robert
3 Bills (138 kV) and Vail-Irvington (138 kV) lines along an access road which is an east extension
4 of the Old Vail Connection Road to where Old Vail Connection Road intersects Wilmot Road
5 (2.3 miles). At this intersection, the Alignment turns south extending to the Nogales Tap and
6 interconnects to the existing line (1.5 miles). From that interconnection, the alignment then
7 continues south to the Kantor Substation (27.8 miles) utilizing the existing line that was
8 previously rebuilt in accordance in the Application in Line Siting Case No. 78 and approved in
9 Decision No. 56097 (July 6, 1988). No improvements, pole replacements, or construction are
10 necessary therein and the existing line in this portion is hereby designated for operation at 138 kV.

11 The Project Alignment leaves the Kantor Substation southerly along the foothills of the
12 Santa Rita Mountains east of the Santa Cruz River. South of Josephine Canyon, the Project
13 Alignment drops out of the foothills and into the Santa Cruz River Valley (11.8 miles). To this
14 point from the Nogales Tap the Project Alignment follows the alignment for the existing 115 kV
15 transmission line. North of the intersection of that existing 115 kV transmission line alignment
16 and Pendleton Drive, the Project Alignment deviates from the existing 115 kV transmission line
17 alignment and shifts 0.2 miles to the easterly edge of the UPRR right-of-way.

18 The Project Alignment then continues paralleling the UPRR right-of-way to the Cañez
19 Substation (1.8 miles), and then continuing southerly adjacent to the UPRR in the Santa Cruz
20 River Valley (3.4 miles). Near the intersection of Pendleton Drive and Avenida Coatimundi, the
21 alignment shifts from the UPRR right-of-way and parallels Avenida Coatimundi east to the
22 Sonoita Substation (0.3 miles).

23 The Project Alignment extends southerly -out of the Sonoita Substation along the existing
24 line across Sonoita Creek and the Santa Cruz River to Old Tucson Road, and then parallels Old
25 Tucson Road to a point near the intersection with Grand Avenue (5.9 miles).

26 At the intersection of Old Tucson Road and Grand Avenue, the line departs from the
27 existing line to proceed east of and parallel to Grand Avenue on the east side of Nogales Wash

1 through an industrial area (0.9 miles). The Project Alignment then returns to the existing line
2 alignment near where Frank Reed Road intersects Grand Avenue, and continues south, along the
3 west side of the Santa Cruz County Complex (0.8 miles). The Alignment then shifts east and
4 passes through the Preston Mobile Home Park (0.3 miles) with a 1250-foot-wide planning corridor
5 for this course only.

6 The Project Alignment then turns to the south through the Mariposa Mall, across Mariposa
7 Road, and through the Loma Linda Shopping Center (0.4 miles). The Project Alignment continues
8 on the existing line's alignment and turns to the east, entering the Valencia Substation located in
9 Section 5, Township 24 South, Range 13 East (0.4 miles).

10 The Project will replace the existing wooden H-frame structures with steel monopoles as
11 described in the Application. Steel monopoles will also be used between Vail Substation and the
12 Nogales Tap; the existing transmission line portion constructed pursuant to Line Siting Case No.
13 78 is already on steel monopoles.

14 CONDITIONS

15 This Certificate is granted upon the following conditions:

- 16 1. The Applicant shall obtain all approvals and permits required by the United
17 States, the State of Arizona, Pima County, Santa Cruz County, the City of
18 Tucson, the City of Nogales, the City of Sahuarita~~the County of [county]~~, and
19 any other governmental entities having jurisdiction necessary to construct the
20 Project.
21
- 22 2. The Applicant shall comply with all existing applicable statutes, ordinances,
23 master plans and regulations of the United States, the State of Arizona, Pima
24 County, Santa Cruz County, the City of Tucson, the City of Nogales, the City of
25 Sahuarita~~the County of [county]~~, and any other governmental entities having
26 jurisdiction during the construction and operation of the transmission line ~~[power~~
27 ~~plant]~~.

- 1 3. If any archaeological, paleontological or historical site or object that is at least
2 fifty years old is discovered on state, county or municipal land during the
3 construction or operation of the transmission line-~~[power plant]~~, the
4 Applicant or its representative in charge shall promptly report the discovery
5 to the Director of the Arizona State Museum, and in consultation with the
6 Director, shall immediately take all reasonable steps to secure and maintain the
7 preservation of the discovery as required under- A.R.S. § 41-844.
- 8 4. If human remains and/or funerary objects are encountered on private land
9 during the course of any ground-disturbing activities relating to the
10 construction or operation of the transmission line-~~[power plant]~~, the Applicant
11 shall cease work on the affected area of the Project and notify the Director of the
12 Arizona State Museum as required under- A.R.S. § 41-865.
- 13 5. The Applicant shall comply with the notice and salvage requirements
14 of the Arizona Native Plant Law (A.R.S. §§ 3-901 et seq. as applicable) and shall,
15 to the extent feasible, minimize the destruction of native plants during the
16 construction and operation of the transmission line-~~[power plant]~~.
- 17 6. The Applicant shall not assign this Certificate or its interest in the Project
18 authorized by this Certificate unless both Applicant (as Transferor/Assignor)
19 and Transferee/Assigned has signed a "Notice of Transfer of Certificate of
20 Environmental Compatibility" ("Notice") as required under A.R.S. § 40-
21 360.08(A) and A.A.C. R14-3-213(F). That Notice must be filed in this
22 Docket. Transferee/Assignee, as part of acquiring any interest in the Project,
23 must agree to comply with all terms, limitations and conditions contained
24 within this Certificate originally issued to Applicant by the Arizona Power
25 Plant and Transmission Line Siting Committee and approved and/or issued by
26 the Arizona Corporation Commission.~~without prior approval of the~~
27 ~~Commission. Any assignment of this Certificate shall require the assignee to~~

1 ~~assume all responsibilities of the Applicant listed in this Certificate.~~

- 2 7. This authorization to construct this Project shall expire five years from the date
3 the Certificate is approved by the Commission unless the transmission line
4 ~~[power plant]~~ is capable of operation. However, prior to expiration, the Applicant
5 or its assignees may request that the Commission extend this time limitation.
- 6 8. In the event that the Project requires an extension of the term of this Certificate
7 prior to completion of construction, Applicant shall use reasonable means to
8 notify all landowners, neighborhood associations registered with the local
9 governing jurisdiction, and residents within one mile of the Project corridor
10 ~~[location]~~, all persons who made public comment at this proceeding, and all
11 parties to this proceeding of the request, and Applicant will provide the time and
12 place of the hearing in which the Commission will consider ~~its~~the request for
13 extension. [CONDITION 7 IN CASE 137 DECISION NO. 70469]
- 14 9. The Applicant shall make every reasonable effort to identify and correct, on a case-
15 specific basis, all complaints of interference with radio or television signals from
16 operation of the transmission lines and related facilities addressed in this
17 Certificate. The Applicant shall maintain written records for a period of five years
18 of all complaints of radio or television interference attributable to operation,
19 together with the corrective action taken in response to each complaint. All
20 complaints shall be recorded to include notations on the corrective action taken.
21 Complaints not leading to a specific action or for which there was no resolution
22 shall be noted and explained.
- 23 10. Within 120 days of the Commission decision granting this Certificate, Applicant
24 will post signs in public rights-of-way giving notice of the Project corridor to the
25 extent authorized by law. The Applicant shall place signs in prominent locations at
26 reasonable intervals such that the public is notified along the full length of the
27 transmission line until the transmission structures are constructed. To the extent

1 practicable, within 45 days of securing easement or right-of-way for the Project, the
2 Applicant shall erect and maintain signs providing public notice that the property is
3 the site of a future transmission line. Such signage shall be no smaller than a
4 normal roadway sign. The signs shall advise:

- 5 (a) That the site has been approved for the construction of Project facilities;
- 6 (b) The expected date of completion of the Project facilities;
- 7 (c) A phone number for public information regarding the Project;
- 8 (d) The name of the Project;
- 9 (e) The name of the Applicant; and
- 10 (f) The website of the Project.

11 11. Applicant, or its assignee(s), shall design the transmission lines to incorporate
12 reasonable measures to minimize impacts to raptors.

13 12. Applicant, or its assignee(s), shall use non-specular conductor and dulled surfaces
14 for transmission line structures.

15 13. Before construction on this Project may commence, the Applicant shall file a
16 construction mitigation and restoration plan ("Plan") with ACC Docket Control.
17 Where practicable, the Plan shall specify the Applicant's plans for construction
18 access and methods to minimize impacts to wildlife and to minimize vegetation
19 disturbance outside of the Project right-of-way particularly in drainage channels and
20 along stream banks, and shall re-vegetate, unless waived by the landowner, native
21 areas of construction disturbance to its preconstruction state outside of the power-
22 line right of way after construction has been completed. The Plan shall
23 specify the Applicant's plans for coordination with the Arizona Game and
24 Fish Department and the State Historic Preservation Office. The Applicant shall
25 use existing roads for construction and access where practicable and the Plan shall
26 specify the manner in which the Applicant makes use of existing roads.

27 14. With respect to the Project, Applicant shall participate in good faith in state and

- 1 regional transmission study forums to coordinate transmission expansion plans
2 related to the Project and to resolve transmission constraints in a timely manner.
- 3 15. The Applicant shall provide copies of this Certificate to the City of Tucson, the
4 City of Sahuarita, the City of Nogales, Pima County, Santa Cruz County, [all
5 affected governmental entities, e.g., affected cities and counties, the Arizona State
6 Land Department, the State Historic Preservation Office, and the Arizona Game
7 and Fish Department].
- 8 16. Prior to the date construction commences on this Project, the Applicant shall
9 provide known homebuilders, neighborhood associations registered with the local
10 governing jurisdiction, -and developers of record, within one mile of the center
11 line of the Certificated Project Alignmentroute [power plant] the identity,
12 location, and a pictorial depiction of the type of power line [plant] being
13 constructed, accompanied by a written description, and encourage the developers
14 and homebuilders to include this information in the developers' and homebuilders'
15 homeowners' disclosure statements. [SEE CONDITION 6 IN CASE 137
16 DECISION NO. 70649].
- 17 17. Before commencing construction of Project facilities located parallel to and within
18 100 feet of any existing natural gas or hazardous liquid pipeline, the Applicant
19 shall:
- 20 (a) Perform the appropriate grounding and cathodic protection studies to show
21 that the Project's location parallel to and within 100 feet of such pipeline
22 results in no material adverse impacts to the pipeline or to public safety
23 when both the pipeline and the Project are in operation. If material adverse
24 impacts are noted in the studies, Applicant shall take appropriate steps to
25 ensure that such material adverse impacts are mitigated. Applicant shall
26 provide to Commission Staff reports of studies performed; and
- 27 (b) Perform a technical study simulating an outage of the Project that may be

1 caused by the collocation of the Project parallel to and within 100 feet of the
2 existing natural gas or hazardous liquid pipeline. This study should either: i)
3 show that such outage does not result in customer outages; or ii) include
4 operating plans to minimize any resulting customer outages. Applicant shall
5 provide a copy of this study to Commission Staff.

6 18. Applicant will follow the latest Western Electricity Coordinating Council/North
7 American Electric Reliability Corporation Planning standards as approved by the
8 Federal Energy Regulatory Commission, and National Electrical Safety Code
9 construction standards.

10 19. The Applicant shall submit a self-certification letter annually, identifying progress
11 made with respect to each condition contained in the Certificate, including which
12 conditions have been met. Each letter shall be submitted to the Docket Control of
13 the Arizona Corporation Commission on September~~December~~ 1 beginning in
14 2010~~2009~~. Attached to each certification letter shall be documentation explaining
15 how compliance with each condition was achieved. Copies of each letter along with
16 the corresponding documentation shall be submitted to the Arizona Attorney
17 General and Department of Commerce Energy Office. The requirement for the self-
18 certification shall expire on the date the Project is placed into operation.

19 20. Within sixty (60) days of the Commission decision granting this Certificate, the
20 Applicant shall make good faith efforts to commence discussions with private
21 landowners, on whose property the Project Alignment~~corridor~~ is located, to
22 identify the specific location for the Project's right-of-way and placement of
23 poles.

24 21. The Applicant shall expeditiously pursue reasonable efforts to work with
25 private landowners on whose property the Project right-of-way will be located,
26 to mitigate the impacts of the location, construction, and operation of the
27 Project on private land.

1 22. The Certificate does not grant to the Applicant to right to construct a second
2 circuit in Segment 1B – the existing line approved in Decision No. 56097 (July
3 6, 1988) on single steel poles that is currently operating at 115 kV. As
4 explained in the Application under Line Siting Case No. 78, that line is
5 designed to be able to operate at 138 kV. This Certificate recognizes that, as
6 part of the Vail to Valencia 115 kV to 138 kV Transmission Line Upgrade
7 Project, the existing line in Segment 1B will now operate at 138 kV.
8
9

10 **FINDINGS OF FACT AND CONCLUSIONS OF LAW**

11 This Certificate incorporates the following findings of fact and conclusions of law:

- 12 1. The Project is in the public interest because it aids the state in meeting the need for an
13 adequate, economical and reliable supply of electric power.
- 14 1.2. In balancing the need for the Project with its effect on the environment and ecology
15 of the state, the conditions placed on the CEC by the Committee effectively
16 minimize its impact on the environment and ecology of the state.
- 17 2.3. The conditions placed on the CEC by the Committee resolve matters concerning
18 the need for the Project and its impact on the environment and ecology of the state
19 raised during the course of proceedings, and as such, serves as the findings on the
20 matters raised.
- 21 4. In light of these conditions, the balancing in the broad public interest results in
22 favor of granting the CEC.

23 DATED this ____ day of _____ 2009.

24 **THE ARIZONA POWER PLANT AND**
25 **TRANSMISSION LINE SITING COMMITTEE**

26
27 _____
 Hon. John Foreman, Chairman

1 **Exhibit A**

2
3 A transmission line corridor, with the centerline, as determined from Arizona State Plane Coordinate mapping, more particularly described as follows:

4 Beginning at **Vail Substation**, at grid coordinate (X) 1041085.39, (Y) 391274.36, of Central Zone of Arizona State Plane Coordinate System 1983, and to which National Geodetic Survey point PUMP (PID - CZ0252) bears South 42 degrees 20 minutes 38 seconds West, 4,870.50 feet;

6 thence North 88 degrees 44 minutes 54 seconds West, 307.61 feet;

7 thence North 60 degrees 17 minutes 58 seconds West, 1,037.36 feet;

8 thence North 00 degrees 07 minutes 58 seconds West, 1,017.67 feet;

9 thence South 89 degrees 32 minutes 32 seconds West, 11,891.07 feet;

10 thence South 05 degrees 40 minutes 55 seconds West, 1,744.96 feet;

11 thence South 00 degrees 34 minutes 52 seconds East, 6,224.41 feet to a point in **Nogales Tap Substation**;

12 thence South 00 degrees 34 minutes 52 seconds East, 50,753.00 feet;

13 thence South 34 degrees 21 minutes 34 seconds West, 95,891.68 feet;

14 thence South 88 degrees 34 minutes 55 seconds West, 121.34 feet to a point in **Kantor Substation**;

15 thence South 03 degrees 13 minutes 57 seconds East, 158.25 feet;

16 thence South 21 degrees 14 minutes 55 seconds East, 22,453.78 feet;

17 thence South 00 degrees 29 minutes 36 seconds East, 9,011.69 feet;

18 thence South 19 degrees 02 minutes 10 seconds West, 1,725.59 feet;

19 thence South 00 degrees 29 minutes 28 seconds East, 12,408.16 feet;

20 thence South 12 degrees 35 minutes 44 seconds East, 2,722.98 feet;

21 thence South 00 degrees 28 minutes 50 seconds East, 13,826.04 feet;

22 thence South 56 degrees 02 minutes 44 seconds West, 1,101.12 feet to the beginning of a non-tangent curve concave to the southwest, having a radius of 5,853.84 feet, and to which a radial line bears North 47 degrees 55 minutes 45 seconds East;

24 thence southeasterly 2,370.68 feet along said curve through a central angle of 23 degrees 12 minutes 13 seconds;

25 thence South 18 degrees 52 minutes 02 seconds East, 5,858.00 feet to a point 172 feet westerly of the west side of **Cañez Substation**;

26
27 thence South 18 degrees 52 minutes 02 seconds East, 12,393.42 feet to the beginning of a curve concave to the northeast and having a radius of 5,553.78 feet;

1 **Exhibit A**

2
3 A transmission line corridor, with the centerline, as determined from Arizona State Plane Coordinate mapping, more particularly described as follows:

4 Beginning at **Vail Substation**, at grid coordinate (X) 1041085.39, (Y) 391274.36, of Central Zone of Arizona
5 State Plane Coordinate System 1983, and to which National Geodetic Survey point PUMP (PID - CZ0252)
bears South 42 degrees 20 minutes 38 seconds West, 4,870.50 feet;

6 thence North 88 degrees 44 minutes 54 seconds West, 307.61 feet;

7 thence North 60 degrees 17 minutes 58 seconds West, 1,037.36 feet;

8 thence North 00 degrees 07 minutes 58 seconds West, 1,017.67 feet;

9 thence South 89 degrees 32 minutes 32 seconds West, 11,891.07 feet;

10 thence South 05 degrees 40 minutes 55 seconds West, 1,744.96 feet;

11 thence South 00 degrees 34 minutes 52 seconds East, 6,224.41 feet to a point in **Nogales Tap
Substation**;

12 thence South 00 degrees 34 minutes 52 seconds East, 50,753.00 feet;

13 thence South 34 degrees 21 minutes 34 seconds West, 95,891.68 feet;

14 thence South 88 degrees 34 minutes 55 seconds West, 121.34 feet to a point in **Kantor Substation**;

15 thence South 03 degrees 13 minutes 57 seconds East, 158.25 feet;

16 thence South 21 degrees 14 minutes 55 seconds East, 22,453.78 feet;

17 thence South 00 degrees 29 minutes 36 seconds East, 9,011.69 feet;

18 thence South 19 degrees 02 minutes 10 seconds West, 1,725.59 feet;

19 thence South 00 degrees 29 minutes 28 seconds East, 12,408.16 feet;

20 thence South 12 degrees 35 minutes 44 seconds East, 2,722.98 feet;

21 thence South 00 degrees 28 minutes 50 seconds East, 13,826.04 feet;

22 thence South 56 degrees 02 minutes 44 seconds West, 1,101.12 feet to the beginning of a non-tangent
23 curve concave to the southwest, having a radius of 5,853.84 feet, and to which a radial line bears North 47
degrees 55 minutes 45 seconds East;

24 thence southeasterly 2,370.68 feet along said curve through a central angle of 23 degrees 12 minutes 13
seconds;

25 thence South 18 degrees 52 minutes 02 seconds East, 5,858.00 feet to a point 172 feet westerly of the west
26 side of **Cañez Substation**;

27 thence South 18 degrees 52 minutes 02 seconds East, 12,393.42 feet to the beginning of a curve concave
to the northeast and having a radius of 5,553.78 feet;

**CLEAN VERSION OF
PROPOSED FORM OF
CERTIFICATE OF
ENVIRONMENTAL
COMPATIBILITY**

1
2
3
4
5
6
7
8
9
10
11

**BEFORE THE ARIZONA POWER PLANT AND
TRANSMISSION LINE SITING COMMITTEE**

12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

IN THE MATTER OF THE APPLICATION OF
UNS ELECTRIC, INC. FOR A CERTIFICATE
OF ENVIRONMENTAL COMPATIBILITY
FOR THE VAIL TO VALENCIA 115 KV TO
138 KV TRANSMISSION LINE UPGRADE
PROJECT, ORIGINATING AT THE EXISTING
VAIL SUBSTATION IN SEC. 4, T.16S., R.15E.,
PIMA COUNTY, TO THE EXISTING
VALENCIA SUBSTATION IN SEC. 5, T.24S.,
R.14E., IN THE CITY OF NOGALES, SANTA
CRUZ COUNTY, ARIZONA.

Docket No. L-00000F-09-0190-00144
Case No. 144

12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

Pursuant to notice given as provided by law, the Arizona Power Plant and Transmission
Line Siting Committee (the "Committee") held public hearings on June 2, 3, 4, 2009 in Rio Rico,
all in conformance with the requirements of Arizona Revised Statutes ("A.R.S.") § 40-360, *et*
seq., for the purpose of receiving evidence and deliberating on the Application of UNS Electric,
Inc. ("Applicant") for a Certificate of Environmental Compatibility ("CEC") in the above-
captioned case (the "Project").

The following members and designees of members of the Committee were present at one
or more of the hearings for the evidentiary presentations and/or for the deliberations:

John Foreman	Chairman, Designee for Arizona Attorney General Terry Goddard
David L. Eberhart, P.E.	Designee for Chairman, Arizona Corporation Commission
Paul Rasmussen	Designee for Director, Arizona Department of Environmental Quality
Jessica Youle	Designee for Director, Energy Department, Arizona Department of Commerce
Jeff Maguire	Appointed Member
Bill Mundell	Appointed Member

Patricia Noland	Appointed Member
Michael Palmer	Appointed Member
Michael Whalen	Appointed Member
Barry Wong	Appointed Member

The Applicant was represented by J. Matthew Derstine and Jason D. Gellman of Roshka, DeWulf & Patten, PLC, and Marcus G. Jerden of UniSource Energy Corporation. The following parties were granted intervention pursuant to A.R.S. § 40-360.05: Marshall Magruder and Elizabeth Webb, both in pro persona.

At the conclusion of the hearings, the Committee, having received the Application, the appearances of the parties, the evidence, testimony and exhibits presented at the hearings, and being advised of the legal requirements of A.R.S. §§ 40-360 to 40-360.13, upon motion duly made and seconded, voted ☒ to ☒ to grant the Applicant this CEC (Case No. 144) for the Project to rebuild the existing 115 kV transmission line as a 138 kV transmission line and interconnect that transmission line to the Vail Substation as set forth in the Application.

The Project as approved consists of approximately 57.8 miles of 138 kV transmission line and ancillary facilities along the route as described below. The Project starts at the Vail Substation, and ends at the Valencia Substation. A legal description and general location map of the Project is attached as Exhibit A.

As explained in the Project Application, the Project will:

- Interconnect the northern end of the line with a major import substation (the Vail 345/138 kV Substation) instead of the Nogales Tap.
- Upgrade the voltage of the existing 115 kV line to 138 kV.
- Replace aging wooden H-frame structures with steel monopoles.

As explained in the Project Application, the Project Alignment (the route granted for the Project in this CEC), consisting of a 500-foot-wide planning corridor except where noted, and as more further described in attached Exhibit A and the Application, is as follows:

1
2 The Project Alignment originates from the Vail Substation in Section 4, Township 16
3 South, Range 15 East. The Project Alignment then extends westerly parallel to TEP's Vail-Robert
4 Bills (138 kV) and Vail-Irvington (138 kV) lines along an access road which is an east extension
5 of the Old Vail Connection Road to where Old Vail Connection Road intersects Wilmot Road
6 (2.3 miles). At this intersection, the Alignment turns south extending to the Nogales Tap and
7 interconnects to the existing line (1.5 miles). From that interconnection, the alignment then
8 continues south to the Kantor Substation (27.8 miles) utilizing the existing line that was
9 previously rebuilt in accordance in the Application in Line Siting Case No. 78 and approved in
10 Decision No. 56097 (July 6, 1988). No improvements, pole replacements, or construction are
11 necessary therein and the existing line in this portion is hereby designated for operation at 138 kV.

12 The Project Alignment leaves the Kantor Substation southerly along the foothills of the
13 Santa Rita Mountains east of the Santa Cruz River. South of Josephine Canyon, the Project
14 Alignment drops out of the foothills and into the Santa Cruz River Valley (11.8 miles). To this
15 point from the Nogales Tap the Project Alignment follows the alignment for the existing 115 kV
16 transmission line. North of the intersection of that existing 115 kV transmission line alignment
17 and Pendleton Drive, the Project Alignment deviates from the existing 115 kV transmission line
18 alignment and shifts 0.2 miles to the easterly edge of the UPRR right-of-way.

19 The Project Alignment then continues paralleling the UPRR right-of-way to the Cañez
20 Substation (1.8 miles), and then continuing southerly adjacent to the UPRR in the Santa Cruz
21 River Valley (3.4 miles). Near the intersection of Pendleton Drive and Avenida Coatimundi, the
22 alignment shifts from the UPRR right-of-way and parallels Avenida Coatimundi east to the
23 Sonoita Substation (0.3 miles).

24 The Project Alignment extends southerly out of the Sonoita Substation along the existing
25 line across Sonoita Creek and the Santa Cruz River to Old Tucson Road, and then parallels Old
26 Tucson Road to a point near the intersection with Grand Avenue (5.9 miles).

1 At the intersection of Old Tucson Road and Grand Avenue, the line departs from the
2 existing line to proceed east of and parallel to Grand Avenue on the east side of Nogales Wash
3 through an industrial area (0.9 miles). The Project Alignment then returns to the existing line
4 alignment near where Frank Reed Road intersects Grand Avenue, and continues south, along the
5 west side of the Santa Cruz County Complex (0.8 miles). The Alignment then shifts east and
6 passes through the Preston Mobile Home Park (0.3 miles) with a 1250-foot-wide planning corridor
7 for this course only.

8 The Project Alignment then turns to the south through the Mariposa Mall, across Mariposa
9 Road, and through the Loma Linda Shopping Center (0.4 miles). The Project Alignment continues
10 on the existing line's alignment and turns to the east, entering the Valencia Substation located in
11 Section 5, Township 24 South, Range 13 East (0.4 miles).

12 The Project will replace the existing wooden H-frame structures with steel monopoles as
13 described in the Application. Steel monopoles will also be used between Vail Substation and the
14 Nogales Tap; the existing transmission line portion constructed pursuant to Line Siting Case No.
15 78 is already on steel monopoles.

17 **CONDITIONS**

18 This Certificate is granted upon the following conditions:

- 19 1. The Applicant shall obtain all approvals and permits required by the United
20 States, the State of Arizona, Pima County, Santa Cruz County, the City of
21 Tucson, the City of Nogales, the City of Sahuarita, and any other governmental
22 entities having jurisdiction necessary to construct the Project.
- 23 2. The Applicant shall comply with all existing applicable statutes, ordinances,
24 master plans and regulations of the United States, the State of Arizona, Pima
25 County, Santa Cruz County, the City of Tucson, the City of Nogales, the City of
26 Sahuarita, and any other governmental entities having jurisdiction during the
27 construction and operation of the transmission line.

- 1 3. If any archaeological, paleontological or historical site or object that is at least
2 fifty years old is discovered on state, county or municipal land during the
3 construction or operation of the transmission line, the Applicant or its
4 representative in charge shall promptly report the discovery to the Director of
5 the Arizona State Museum, and in consultation with the Director, shall
6 immediately take all reasonable steps to secure and maintain the preservation of
7 the discovery as required under A.R.S. § 41-844.
- 8 4. If human remains and/or funerary objects are encountered on private land
9 during the course of any ground-disturbing activities relating to the
10 construction or operation of the transmission line, the Applicant shall cease work
11 on the affected area of the Project and notify the Director of the Arizona State
12 Museum as required under A.R.S. § 41-865.
- 13 5. The Applicant shall comply with the notice and salvage requirements
14 of the Arizona Native Plant Law (A.R.S. §§ 3-901 et seq. as applicable) and shall,
15 to the extent feasible, minimize the destruction of native plants during the
16 construction and operation of the transmission line.
- 17 6. The Applicant shall not assign this Certificate or its interest in the Project
18 authorized by this Certificate unless both Applicant (as Transferor/Assignor)
19 and Transferee/Assigned has signed a "Notice of Transfer of Certificate of
20 Environmental Compatibility" ("Notice") as required under A.R.S. § 40-
21 360.08(A) and A.A.C. R14-3-213(F). That Notice must be filed in this
22 Docket. Transferee/Assignee, as part of acquiring any interest in the Project,
23 must agree to comply with all terms, limitations and conditions contained
24 within this Certificate originally issued to Applicant by the Arizona Power
25 Plant and Transmission Line Siting Committee and approved and/or issued by
26 the Arizona Corporation Commission.
- 27 7. This authorization to construct this Project shall expire five years from the date

1 the Certificate is approved by the Commission unless the transmission line is
2 capable of operation. However, prior to expiration, the Applicant or its assignees
3 may request that the Commission extend this time limitation.

4 8. In the event that the Project requires an extension of the term of this Certificate
5 prior to completion of construction, Applicant shall use reasonable means to
6 notify all landowners, neighborhood associations registered with the local
7 governing jurisdiction, and residents within one mile of the Project corridor,
8 all persons who made public comment at this proceeding, and all parties to this
9 proceeding of the request. Applicant will provide the time and place of the
10 hearing in which the Commission will consider its request for extension.

11 9. The Applicant shall make every reasonable effort to identify and correct, on a case-
12 specific basis, all complaints of interference with radio or television signals from
13 operation of the transmission lines and related facilities addressed in this
14 Certificate. The Applicant shall maintain written records for a period of five years
15 of all complaints of radio or television interference attributable to operation,
16 together with the corrective action taken in response to each complaint. All
17 complaints shall be recorded to include notations on the corrective action taken.
18 Complaints not leading to a specific action or for which there was no resolution
19 shall be noted and explained.

20 10. Within 120 days of the Commission decision granting this Certificate, Applicant
21 will post signs in public rights-of-way giving notice of the Project corridor to the
22 extent authorized by law. The Applicant shall place signs in prominent locations at
23 reasonable intervals such that the public is notified along the full length of the
24 transmission line until the transmission structures are constructed. To the extent
25 practicable, within 45 days of securing easement or right-of-way for the Project, the
26 Applicant shall erect and maintain signs providing public notice that the property is
27 the site of a future transmission line. Such signage shall be no smaller than a

normal roadway sign. The signs shall advise:

- (a) That the site has been approved for the construction of Project facilities;
- (b) The expected date of completion of the Project facilities;
- (c) A phone number for public information regarding the Project;
- (d) The name of the Project;
- (e) The name of the Applicant; and
- (f) The website of the Project.

11. Applicant, or its assignee(s), shall design the transmission lines to incorporate reasonable measures to minimize impacts to raptors.

12. Applicant, or its assignee(s), shall use non-specular conductor and dulled surfaces for transmission line structures.

13. Before construction on this Project may commence, the Applicant shall file a construction mitigation and restoration plan ("Plan") with ACC Docket Control. Where practicable, the Plan shall specify the Applicant's plans for construction access and methods to minimize impacts to wildlife and to minimize vegetation disturbance outside of the Project right-of-way particularly in drainage channels and along stream banks, and shall re-vegetate, unless waived by the landowner, native areas of construction disturbance to its preconstruction state outside of the power-line right of way after construction has been completed. The Plan shall specify the Applicant's plans for coordination with the Arizona Game and Fish Department and the State Historic Preservation Office. The Applicant shall use existing roads for construction and access where practicable and the Plan shall specify the manner in which the Applicant makes use of existing roads.

14. With respect to the Project, Applicant shall participate in good faith in state and regional transmission study forums to coordinate transmission expansion plans related to the Project and to resolve transmission constraints in a timely manner.

15. The Applicant shall provide copies of this Certificate to the City of Tucson, the

1 City of Sahuarita, the City of Nogales, Pima County, Santa Cruz County, the
2 Arizona State Land Department, the State Historic Preservation Office, and the
3 Arizona Game and Fish Department.

4 16. Prior to the date construction commences on this Project, the Applicant shall
5 provide known homebuilders, neighborhood associations registered with the local
6 governing jurisdiction, and developers of record, within one mile of the center
7 line of the Certificated Project Alignment the identity, location, and a
8 pictorial depiction of the type of power line being constructed, accompanied by a
9 written description, and encourage the developers and homebuilders to include this
10 information in the developers' and homebuilders' homeowners' disclosure
11 statements.

12 17. Before commencing construction of Project facilities located parallel to and within
13 100 feet of any existing natural gas or hazardous liquid pipeline, the Applicant
14 shall:

15 (a) Perform the appropriate grounding and cathodic protection studies to show
16 that the Project's location parallel to and within 100 feet of such pipeline
17 results in no material adverse impacts to the pipeline or to public safety
18 when both the pipeline and the Project are in operation. If material adverse
19 impacts are noted in the studies, Applicant shall take appropriate steps to
20 ensure that such material adverse impacts are mitigated. Applicant shall
21 provide to Commission Staff reports of studies performed; and

22 (b) Perform a technical study simulating an outage of the Project that may be
23 caused by the collocation of the Project parallel to and within 100 feet of the
24 existing natural gas or hazardous liquid pipeline. This study should either: i)
25 show that such outage does not result in customer outages; or ii) include
26 operating plans to minimize any resulting customer outages. Applicant shall
27 provide a copy of this study to Commission Staff.

- 1 18. Applicant will follow the latest Western Electricity Coordinating Council/North
2 American Electric Reliability Corporation Planning standards as approved by the
3 Federal Energy Regulatory Commission, and National Electrical Safety Code
4 construction standards.
- 5 19. The Applicant shall submit a self-certification letter annually, identifying progress
6 made with respect to each condition contained in the Certificate, including which
7 conditions have been met. Each letter shall be submitted to the Docket Control of
8 the Arizona Corporation Commission on September 1 beginning in 2010. Attached
9 to each certification letter shall be documentation explaining how compliance with
10 each condition was achieved. Copies of each letter along with the corresponding
11 documentation shall be submitted to the Arizona Attorney General and Department
12 of Commerce Energy Office. The requirement for the self-certification shall expire
13 on the date the Project is placed into operation.
- 14 20. Within sixty (60) days of the Commission decision granting this Certificate, the
15 Applicant shall make good faith efforts to commence discussions with private
16 landowners, on whose property the Project Alignment is located, to identify the
17 specific location for the Project's right-of-way and placement of poles.
- 18 21. The Applicant shall expeditiously pursue reasonable efforts to work with
19 private landowners on whose property the Project right-of-way will be located,
20 to mitigate the impacts of the location, construction, and operation of the
21 Project on private land.
- 22 22. The Certificate does not grant to the Applicant to right to construct a second
23 circuit in Segment 1B – the existing line approved in Decision No. 56097 (July
24 6, 1988) on single steel poles that is currently operating at 115 kV. As
25 explained in the Application under Line Siting Case No. 78, that line is
26 designed to be able to operate at 138 kV. This Certificate recognizes that, as
27 part of the Vail to Valencia 115 kV to 138 kV Transmission Line Upgrade

Project, the existing line in Segment 1B will now operate at 138 kV.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

This Certificate incorporates the following findings of fact and conclusions of law:

1. The Project is in the public interest because it aids the state in meeting the need for an adequate, economical and reliable supply of electric power.
2. In balancing the need for the Project with its effect on the environment and ecology of the state, the conditions placed on the CEC by the Committee effectively minimize its impact on the environment and ecology of the state.
3. The conditions placed on the CEC by the Committee resolve matters concerning the need for the Project and its impact on the environment and ecology of the state raised during the course of proceedings, and as such, serves as the findings on the matters raised.
4. In light of these conditions, the balancing in the broad public interest results in favor of granting the CEC.

DATED this ____ day of _____ 2009.

**THE ARIZONA POWER PLANT AND
TRANSMISSION LINE SITING COMMITTEE**

Hon. John Foreman, Chairman

Exhibit A

A transmission line corridor, with the centerline, as determined from Arizona State Plane Coordinate mapping, more particularly described as follows:

Beginning at **Vail Substation**, at grid coordinate (X) 1041085.39, (Y) 391274.36, of Central Zone of Arizona State Plane Coordinate System 1983, and to which National Geodetic Survey point PUMP (PID - CZ0252) bears South 42 degrees 20 minutes 38 seconds West, 4,870.50 feet;

thence North 88 degrees 44 minutes 54 seconds West, 307.61 feet;

thence North 60 degrees 17 minutes 58 seconds West, 1,037.36 feet;

thence North 00 degrees 07 minutes 58 seconds West, 1,017.67 feet;

thence South 89 degrees 32 minutes 32 seconds West, 11,891.07 feet;

thence South 05 degrees 40 minutes 55 seconds West, 1,744.96 feet;

thence South 00 degrees 34 minutes 52 seconds East, 6,224.41 feet to a point in **Nogales Tap Substation**;

thence South 00 degrees 34 minutes 52 seconds East, 50,753.00 feet;

thence South 34 degrees 21 minutes 34 seconds West, 95,891.68 feet;

thence South 88 degrees 34 minutes 55 seconds West, 121.34 feet to a point in **Kantor Substation**;

thence South 03 degrees 13 minutes 57 seconds East, 158.25 feet;

thence South 21 degrees 14 minutes 55 seconds East, 22,453.78 feet;

thence South 00 degrees 29 minutes 36 seconds East, 9,011.69 feet;

thence South 19 degrees 02 minutes 10 seconds West, 1,725.59 feet;

thence South 00 degrees 29 minutes 28 seconds East, 12,408.16 feet;

thence South 12 degrees 35 minutes 44 seconds East, 2,722.98 feet;

thence South 00 degrees 28 minutes 50 seconds East, 13,826.04 feet;

thence South 56 degrees 02 minutes 44 seconds West, 1,101.12 feet to the beginning of a non-tangent curve concave to the southwest, having a radius of 5,853.84 feet, and to which a radial line bears North 47 degrees 55 minutes 45 seconds East;

thence southeasterly 2,370.68 feet along said curve through a central angle of 23 degrees 12 minutes 13 seconds;

thence South 18 degrees 52 minutes 02 seconds East, 5,858.00 feet to a point 172 feet westerly of the west side of **Cañez Substation**;

thence South 18 degrees 52 minutes 02 seconds East, 12,393.42 feet to the beginning of a curve concave to the northeast and having a radius of 5,553.78 feet;

thence southeasterly 3,974.97 feet through a central angle of 41 degrees 00 minutes 28 seconds;

1 thence South 59 degrees 52 minutes 30 seconds East, 1,369.94 feet;
2 thence North 64 degrees 22 minutes 52 seconds East, 1,337.41 feet to a point 63 feet southerly of the
south side of **Sonoita Substation**;
3 thence South 25 degrees 54 minutes 45 seconds East, 2,434.49 feet;
4 thence South 18 degrees 53 minutes 51 seconds East, 6,598.53 feet;
5 thence South 37 degrees 22 minutes 02 seconds East, 6,610.08 feet;
6 thence South 00 degrees 35 minutes 23 seconds East, 7,555.17 feet;
7 thence South 30 degrees 26 minutes 05 seconds West, 1,143.95 feet;
8 thence South 03 degrees 55 minutes 22 seconds East, 3,724.62 feet;
9 thence South 17 degrees 58 minutes 34 seconds East, 3,169.01 feet;
10 thence South 79 degrees 39 minutes 56 seconds East, 1,303.27 feet;
11 thence South 43 degrees 47 minutes 11 seconds East, 1,683.12 feet;
12 thence South 04 degrees 49 minutes 19 seconds West, 1,849.85 feet;
13 thence South 00 degrees 35 minutes 14 seconds East, 3,980.53 feet;
14 thence North 74 degrees 35 minutes 02 seconds East, 1,332.75 feet;
15 thence South 01 degrees 13 minutes 18 seconds East, 1,873.85 feet;
16 thence North 88 degrees 43 minutes 12 seconds East, 2,191.97 feet to the terminus of said centerline at
Valencia Substation, at grid coordinate (X) 1007459.01, (Y) 133493.23, of said Central Zone, and to which
17 National Geodetic Survey point M423 (PID – CG0883) bears South 23 degrees 09 minutes 01 seconds
East, 34,502.53 feet.

18
19 Said centerline is 57.785 miles in length, more or less.

20
21
22
23
24
25
26
27